

REMARKS

The application has been amended to place the application in condition for allowance at the time of the next Official Action.

As to the statement in the Official Action regarding Applicant's claim to priority, Applicant submitted a certified copy of priority document Italian application No. AR2002A000027 on June 25, 2003 as evidenced by a copy of the dated postcard receipt submitted herewith. Accordingly, the claim to priority is believed complete.

Applicant has canceled claim 14 which is believed to render moot the drawing objection noted in the Official Action.

Applicant notes that a preliminary amendment was submitted on June 25, 2003 that is believed to address the objection to the abstract noted in the Official Action.

The specification has been amended to make editorial changes including those noted in the Official Action to place the application in condition for allowance at the time of the next Official Action.

Claims 1-15 were previously pending in the application. Claims 1-15 are canceled and replaced with new claims 16-28. The new claims are believed to address the claim objections and 35 USC §112, second paragraph rejections noted in the Official Action.

Claims 1 and 3-13 are rejected as unpatentable over SUZUKI et al. 4,477,875 in view of STUPAK, JR. 4,665,348.

Reconsideration and withdrawal of the rejection are respectfully requested because the references do not disclose or suggest a solenoid with a sliding ferromagnetic nucleus balanced by a spring and supplied with a rod that interacts with a pivot point of the turbocharger, and a sensing system for sensing a position occupied by the ferromagnetic nucleus in the solenoid as recited in new claim 16 of the present application.

As noted in the Official Action, SUZUKI et al. do not teach or suggest a position sensor. This shortcoming is attempted to be overcome by combining SUZUKI et al. with STUPAK, JR.

However, STUPAK, JR. teaches a method that is applied to a variable reluctance circuit. Specifically, column 3, line 64 through column 4, line 23 of STUPAK, JR. teaches variable reluctance actuators that provide a controlled force on the ferromagnetic nucleus. The actuators further provide a controlled current in response to the flux density of the magnetic circuit. STUPAK, JR. further teaches that the position of the moving element (ferromagnetic nucleus) is selectively controlled such that the device of STUPAK, JR. is a constant force linear actuator with controls carried out by a flux density sensor such as a Hall effect device.

STUPAK, JR. does not operate and does not teach operation under variable conditions with an increasing and/or decreasing force. As set forth above, STUPAK, JR. teaches a constant force. In addition, STUPAK, JR. does not teach or suggest that the force on the ferromagnetic nucleus is balanced, by a corresponding force such as a spring.

Accordingly, the teachings of STUPAK, JR. are unrelated to the need to variably control a turbocharger actuator.

MPEP §2143.01 states that if a proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

Using a constant force linear actuator as taught by STUPAK, JR. to modify SUZUKI et al. would change the principle of operation of SUZUKI et al., because SUZUKI et al. operates under a wide range of variable conditions. Accordingly, the proposed modification would change the principle of operation of SUZUKI et al. such that the proposed combination of references is not sufficient to render the claims prima facie obvious.

Both of the references have very different objects from each other. STUPAK, JR. teaches operation with a controlled and constant force and SUZUKI teaches operation with a variable

force. The teachings of STUPAK, JR. do not lend themselves to the operation of SUZUKI et al.

Accordingly, claim 16 is believed patentable over the proposed combination of references.

Claims 17-28 depend from claim 1 and further define the invention and are also believed patentable over the proposed combination of references.

Claim 2 is rejected as unpatentable over SUZUKI et al. in view of STUPAK, JR. and further in view of RIECK et al. 6,700,232 and DETRICK et al. 3,763,412. This rejection is respectfully traversed.

RIECK et al. and DETRICK et al. are only cited for the teaching of a coil made of conducting wire that is sheathed in a coil treated with appropriate insulating material. Neither RIECK et al. nor DETRICK et al. teach or suggest what is recited in claim 16. As set forth above, SUZUKI et al. in view of STUPAK, JR. do not teach or suggest what is recited in claim 16. Since claim 2 is rewritten as new claim 17 and depends from claim 16 and further defines the invention, the proposed combination of references would not render obvious new claim 17.

In addition, claim 17 provides that the solenoid comprises a coil made of conducting wire, the wire is one of sheathed and treated with appropriate insulating material. Accordingly, the wires themselves are sheathed. RIECK et al. at column 3, lines 5-6 in conjunction with Figure 2 teach that the

entire coil 2 is surrounded externally by a protective sheath 9, not that the conducting wires are sheathed. Column 2, lines 27-30 of DETRICK et al. in conjunction with Figure 1 disclose that coil 2 is surrounded by a layer of insulating material 3, not that the wires are treated with appropriate insulating material as recited.

Claims 14 and 15 are rejected as unpatentable over SUZUKI et al. in view of STUPAK, JR. and further in view of WASZKIEWICZ et al. 6,360,541. This rejection is respectfully traversed.

WASZKIEWICZ et al. is only cited for the teaching of flange type means for anchoring the electromechanical group on the turbocharger. WASZKIEWICZ et al. does not teach or suggest what is recited in claim 16. As set forth above, SUZUKI et al. in view of STUPAK, JR. does not teach or suggest what is recited in claim 16. Since claims 14 and 15 are rewritten as claims 27 and 28, respectively, and depend from claim 16 and further define the invention, the proposed combination of references would not render obvious claims 27 and 28.

In view of the present amendment and the foregoing Remarks, it is believed that the present application has been placed in condition for allowance. Reconsideration and allowance are respectfully requested.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any

overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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**Appendix**

The Appendix consists of a copy of a June 25, 2003  
postcard receipt.